

Title (en)

Polymer electrolyte fuel cell

Title (de)

Polymerelektrolyt-Brennstoffzelle

Title (fr)

Pile à combustible à électrolyte polymère

Publication

EP 1450432 A2 20040825 (EN)

Application

EP 04003796 A 20040219

Priority

- JP 2003043004 A 20030220
- JP 2003108880 A 20030414

Abstract (en)

The invention aims at providing a fuel cell capable of highly efficient and stable operation, by eliminating the flooding caused by condensed water and generated water during low-load operation, and by inhibiting the increase in the pressure drop at high loads. A fuel cell that does not flood, particularly during low-load operation, in accordance with the invention is realized by forming multiple independent gas flow channels having independent inlet-side and outlet-side manifold holes in the separator surface, and by connecting these in series or in parallel. This connection can be obtained through switching means characterised in that: the inlets and outlets of such switchable channel means are maintained in both operational modes in a manner that in both operational modes the switchable channel means are fed by their fluid in the same direction of circulation.

IPC 1-7

H01M 8/24; H01M 8/02

IPC 8 full level

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CPC (source: EP US)

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H01M 8/2485 (2013.01 - EP); **H01M 8/0206** (2013.01 - EP US); **H01M 8/0213** (2013.01 - EP US); **Y02E 60/50** (2013.01 - EP)

Cited by

DE102013021628A1; US7691518B2; US7781119B2; WO2009078866A1; WO2004102708A3

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DOCDB simple family (publication)

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